

- [54] DUPLEXER WITH SUM AND DIFFERENCE SIGNAL OUTPUTS

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- [56]
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U.S. PATENT DOCUMENTS

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[57] ABSTRACT

A duplexer is provided in which a transmit input signal is fed in parallel through two autotransformers to a pair of portal loops for establishing an interrogation field. Significantly lower voltage response signals returning via the autotransformers are applied in push-push relationship to the primary of one transformer for producing a difference signal output, and in parallel to a second transformer primary for producing a sum signal output. Back-to-back diodes across the secondary windings of the sum and difference output transformers limit the volt drop across the respective primaries for the relatively higher voltage transmit input signal. The response signal, however, is below the threshold of the diodes and, consequently, the diodes do not attenuate such signal.

6 Claims, 1 Drawing Figure

